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EXAMINER

RAYYAN, SUSAN F

ART UNIT	PAPER NUMBER
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2167

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/761,732	Applicant(s) WHITTEN ET AL.	
	Examiner Susan F. Rayyan	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-22, 24-29 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-22, 24-29 and 31-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


2/23/07

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-5, 7-22, 24-29, 31-33 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5, 7-21, 25-29, 31-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 25 includes "and/or" which makes a claim indefinite. It is unclear as to the combination of the receiving and downloading of the interface.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-22, 24-29, 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,604,110 issued to William H. Savage et al ("Savage") and US Patent Number 7,065,541 issued to Adarsh Gupta et al ("Gupta") and further in view of US 2006/0277227 A1 issued to Colin P. Britton et al ("Britton").

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As per claim 1 Savage teaches:

a server (34) connectable to a network (32) , the server having a memory accessible thereto (Figure 1 and column 5, lines 17-19, 25-28 as networked based client/server application and client/server.);

a source database (37) accessible to the server (34) having data stored therein, the source database having metadata (Figure 4, ref.no. 78) associated therewith identifying a structure and at least one field of the source database (col.4, lines 55-60);

a client (24) connectable to the network (32) for communication with the server (34), the client (24) having a memory accessible thereto for storing a copy of the source database(37) at (col.6, lines 38-50);

the server ... metadata and at least a portion of the data and storing the retrieved data in at least one data object(col.4, lines 55-65);

the server sends the metadata and the at least one data object to the client (col.3, lines 1-15).

Savage does not explicitly teach the client receiving the metadata and the at least one data object from the server and generating and storing a copy of the database using the metadata, and populates the copy of the source database with the data from the at least one data object and wherein the client-server system provides for the transfer of a source database to the client across various database types, vendors and operating systems without development effort.

Gupta does teach the client receives the metadata and the at least one data

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object from the server and generating and storing a copy of the source database using the metadata, and populating the copy of the source database with the data from the at least one data object (col.6, lines 20-27) and wherein the client-server system provides for the transfer of a source database to the client across various database types, vendors and operating systems without development effort (col.4, lines 59-67 and col.6, lines 30-35) to provide continuous transaction services while migrating a database (col.3, lines 41-43). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Savage with the client receives the metadata and the at least one data object from the server and generates and stores a copy of the database using the metadata, and populates the copy of the database with the data from the at least one data object and wherein the client-server system provides for the transfer of a source database to the client across various database types, vendors and operating systems without development effort to provide continuous transaction services while migrating a database (col.3, lines 41-43).

Savage and Gupta do not explicitly teach the server having a programming interface corresponding to each of a plurality of known databases stored thereon, the server programmed to identify and load the interface corresponding to the source database for accessing the source database and retrieving ... and including a processor for receiving and/or downloading the interface corresponding to the source database and receiving. Britton does teach this limitation (see Abstract, as provides interfaces to the respective disparate database systems, paragraph 11, connectors translate between native and

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respective databases, and paragraph 23, as holographic data store coupled to the legacy databases via connectors stores data from the databases) to provide interfaces to disparate database systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Savage and Gupta with having a programming interface corresponding to each of a plurality of known databases stored thereon, the server programmed to identify and load the interface corresponding to the source database for accessing the source database and retrieving ... and including a processor for receiving and/or downloading the interface corresponding to the source database and receiving) to provide interfaces to disparate database systems (paragraph 10).

As per claim 2, same as claim arguments above and Savage teaches: wherein the server further comprises a data access application which includes an executable program for generating and executing queries to the database for retrieving the metadata and the data therefrom and storing the retrieved data in at least one data object, each data object corresponding to a field of the database (col.6, lines 15-17).

As per claim 3 same as claim arguments above and Savage teaches: wherein the metadata includes at least one of: a database identifier; a list of tables stored in the database; a list of columns for each table; and a data type for each column (col. 4, lines 55-60).

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As per claim 4 same as claim arguments above and Gupta teaches:

wherein the database is a relational database (col.6, lines 15-17).

As per claim 5 same as claim arguments above and Savage teaches:

a database server coupled to the database (col. 3, lines 17-33, Figure 1).

As per claim 7 same as claim arguments above and Gupta teaches:

wherein the programming interface is a Java DataBase Connectivity (JDBC)

component (col.3, line 64 to col. 4, line 2).

As per claim 8 same as claim arguments above and Savage teaches:

wherein the database server further comprises a Relational DataBase Management System (RDBMS) (col.5, lines 28-30).

As per claim 9 same as claim arguments above and Savage teaches:

wherein the client further comprises a Relational DataBase Management System (RDBMS) (col.5, lines 28-30).

As per claim 10 same as claim arguments above and Gupta teaches:

wherein the network is the Internet and the client is a Java applet executed on a Java enabled web-browser(col.3, line 64 to col. 4, line 2).

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As per claim 11 same as claim arguments above and Gupta teaches:

wherein the Java applet is downloadable from the server to the client(col.3, line 64 to col. 4, line 2).

As per claim 12 same as claim arguments above and Gupta teaches:

wherein the database to be copied is identified in a request from the client using a Uniform Resource Locator (URL) (col.3, line 64 to col. 4, line 2).

As per claim 13 same as claim arguments above and Savage teaches:

wherein the copy of the database is generated in response to the execution of a GUI function (Figure 1, Ref. No. 24).

As per claim 14 same as claim arguments above and Gupta teaches:

wherein the server further comprises a web-server for communicating with the client(col.3, line 64 to col. 4, line 2).

As per claim 15 same as claim arguments above and Gupta teaches:

wherein the data access application stores the metadata in a structure object and the structure object and the at least one data object in a database object and transfers the database object to the web-server for transfer thereof to the client (col.6, lines 20-27).

As per claim 16 same as claim arguments above and Gupta teaches:

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wherein the web-server serializes the database object prior to the transfer thereof to the client(col.3, line 64 to col. 4, line 2).

As per claim 17 same as claim arguments above and Savage teaches:

wherein the server further comprises a request processing application for validating client access to a requested database or portion thereof (col. 6, lines 60-64).

As per claim 18 same as claim arguments above and Gupta teaches:

wherein the web-server communicates with the client via Hypertext Transfer Protocol (HTTP) (col.3, line 64 to col. 4, line 2).

As per claim 19 same as claim arguments above and Savage teaches:

further comprising an incremental transfer process for maintaining synchronization between the source database and the copy of the source database residing on the client system (col. 14, lines 9-16).

As per claim 20 same as claim arguments above and Gupta teaches:

web based utility for client viewing and modifying database data in a source database, the utility operable across database types, vendors and operating systems(col.3, line 64-67).

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As per claim 21 same as claim arguments above and Savage teaches:

comprising a data verification process for verifying the integrity of the data objects transferred to the client over the network (col. 22, lines 10-12).

As per claim 22 Savage teaches:

retrieving from the database the metadata and at least a portion of the data stored therein (col.4, lines 55-65);

transferring the metadata and the at least one data object to the server for transfer thereof to the client (col. 3, lines 1-15);

Savage does not explicitly teach storing the metadata in a data structure, each data and wherein the data access application operates without development across database types, vendors and operating systems. Gupta does teach storing the retrieved data in at least one data object, each data object corresponding to a field of the database (col. 6, lines 20-27) and wherein the data access application operates without further development across database types, vendors and operating systems (col. 4, line 59-67 and col. 6, lines 30-35) to provide continuous transaction services while migrating a database (col.3, lines 41-43). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Savage with storing the retrieved data in at least one data object, each data object corresponding to a field of the database (col.3, lines 41-43).

Savage and Gupta do not explicitly teach loading an interface corresponding to the database , the interface being selected from a plurality of interfaces stored on

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the server for use with various types of databases, converting the retrieved data to Java objects and storing the Java objects and wherein the data access application operates without ... user interaction across database types, vendors and operating systems to provide continuous transaction services while migrating a database. Britton does teach loading an interface corresponding to the database, the interface being selected from a plurality of interfaces stored on the server for use with various types of databases (paragraph 23, lines 3-4 as connectors provide interfaces to other databases, Figure 1, Reference Number 140a-140c (connectors) and paragraph 28 as connectors may reside locally or on server), converting the retrieved data to Java objects and storing the Java objects (paragraph 30, as Java) and wherein the data access application operates without ... user interaction across database types, vendors and operating systems to provide continuous transaction services while migrating a database (see Abstract) to provide interfaces to disparate database systems (paragraph 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Savage and Gupta with loading an interface corresponding to the database, the interface being selected from a plurality of interfaces stored on the server for use with various types of databases, converting the retrieved data to Java objects and storing the Java objects and wherein the data access application operates without ... user interaction across database types, vendors and operating systems to provide continuous transaction services while migrating a database to provide interfaces to disparate database systems (paragraph 10).

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As per claim 24 same as claim arguments above and Gupta teaches:

comprising a Java DataBase Connectivity (JDBC) interface for accessing the database and retrieving therefrom the metadata and at least a portion of the data stored therein (col.3, lines 64 to col. 4, line 2).

As per claim 25 Savage teaches:

providing a source database having data stored therein, the source database having metadata associated therewith identifying a structure and at least one field of the database (col.4, lined 55-60 and col.6, lines 38-50);

accessing the source database and retrieving the metadata and at least a portion of the data stored therein; storing the retrieved data in at least one data object, each data object corresponding to a field of the database from which the data stored in the data object was retrieved (col. 6, lines 38-50 and col.4, lines 55-64);

sending the metadata and the at least one data object to a client (col. 3, lines 1-15).

Savage does not explicitly teach the server operating on the source database across various database types, vendors and operating systems without requiring development effort; at a client: receiving the metadata and the at least one data object and generating a copy of the source database according to the metadata populating the copy of the source database with data retrieved from the

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at least one data object. Gupta does teach the server operating on the source database across various database types, vendors and operating systems without requiring development effort at a client: and receiving the metadata and the at least one data object and generating a copy of the source database according to the metadata populating the copy of the source database with data retrieved from the at least one data object (col.6, lines 20-27, 30-35 and col.4, lines 59-67) to provide continuous transaction services while migrating a database (col.3, lines 41-43). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Savage with the server operating on the source database across various database types, vendors and operating systems without requiring development effort; at a client: receiving the metadata and the at least one data object and generating a copy of the source database according to the metadata populating the copy of the source database with data retrieved from the at least one data object to provide continuous transaction services while migrating a database (col.3, lines 41-43).

Savage and Gupta do not explicitly teach storing a programming interface corresponding to each of a plurality of known databases on the server, loading the programming interface corresponding to the source database, and receiving and/or downloading the programming interface corresponding to the source database. Britton does teach these limitations (see Abstract, as provides interfaces to the respective disparate database systems, paragraph 11, connectors translate between native and respective databases, and paragraph 23, as holographic data store coupled to the legacy databases via connectors

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stores data from the databases) to provide interfaces to disparate database systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Savage and Gupta with storing a programming interface corresponding to each of a plurality of known databases on the server, loading the programming interface corresponding to the source database, and receiving and/or downloading the programming interface corresponding to the source database to provide interfaces to disparate database systems (paragraph 10).

As per claim 26 same as claim arguments above and Gupta teaches:

storing the metadata in a structure object; storing the structure object and the at least one data object in a database object; serializing the database object; and transferring the database object to the client (col.3, lines 64 to col. 4, line 2 and col.6, lines 20-27)

As per claim 27 same as claim arguments above and Gupta teaches:

comparing a size of the database object to a maximum size prior to the transfer thereof to the client; and if the size of the database object is greater than a maximum size, segmenting the database object and separately transferring each of the segments to the client (col.6, line 45-60).

As per claim 28 same as claim arguments above and Gupta teaches:

at the server: generating an auxiliary object for storing the segments of the database object exceeding the maximum size prior to the transfer thereof to the

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client (col.6, lines 45-60)

As per claim 29 same as claim arguments above and Savage teaches:

at the server: querying the source database for retrieving the metadata and the data stored therein (col.6, lines 15-17).

As per claim 31 same as claim arguments above and Savage teaches:

at the server: validating a client for authorization to access the source database or a portion thereof prior to accessing the source database (col.22, lines 10-12).

As per claim 32 same as claim arguments above and Gupta teaches:

maintaining synchronization between the source database and the copy thereof residing on the client (col. 2, lines 34-47).

As per claim 33 same as claim arguments above and Gupta teaches:

providing a Web based utility for client viewing and modifying the source database(col.3, line64 to col.4, line 2).

Response to Arguments

4. Applicant's arguments filed December 4, 2006 have been fully considered but they are not persuasive.

5. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

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6. Applicant argues transfer of a source database to the client across various database types, vendors, and operating systems without developmental effort. Gupta does teach wherein the client-server system (Figure 1A, Reference 2,8) provides for the transfer of a source database (Data) to the client across various database types, vendors and operating systems (column 4, lines 66-67, as any known type of data storage device and column 6, lines 10-20 as the target is prepared, version/release level is compatible) without development effort (column 2, , lines 34-47, as copy module and column 3, lines 59-60 as seamless migration with no down time). Examiner finds the specification indicates either a human operator or a program is involved in the transfer of the database to the client (paragraph 33, lines 2-4) and therefore Examiner has broadly interpreted the limitation "no developmental effort".

7. Applicant argues Savage and Gupta do not explicitly teach the server having a programming interface corresponding to each of a plurality of known databases stored thereon, the server programmed to identify and load the interface corresponding to the source database for accessing the source database and retrieving ... and including a processor for receiving and/or downloading the interface corresponding to the source database and receiving. Britton does teach this limitation (see Abstract, as provides interfaces to the respective disparate database systems, paragraph 11, connectors translate between native and respective databases, and paragraph 23, as holographic

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data store coupled to the legacy databases via connectors stores data from the databases) to provide interfaces to disparate database systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Savage and Gupta with having a programming interface corresponding to each of a plurality of known databases stored thereon, the server programmed to identify and load the interface corresponding to the source database for accessing the source database and retrieving ... and including a processor for receiving and/or downloading the interface corresponding to the source database and receiving) to provide interfaces to disparate database systems (paragraph 10).

8. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., end-to-end, stand-alone transfer operation without user intervention, point-and-click, GUI, GUI is automatically downloaded, installed and run as an applet at the client, user required to enter a small number of parameters into the GUI including selecting a data source and to define the destination for the transferred database, database vendor is selected at the GUI using a pull down menu which does not require user entry of any complex vendor or version numbers related to the source database nor any knowledge of the same, clicks a transfer button, and the system requires no other user interaction throughout the completion of the database transfer, SSL) are not recited in the rejected

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claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Rayyan whose telephone number is (571) 272-1675. The examiner can normally be reached M-F: 8am - 4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan Rayyan

February 23, 2007



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